



## Cotton/Soybean Insect Newsletter

Volume 14, Issue #2

Edisto Research & Education Center in Blackville, SC

27 May 2019

### Pest Patrol Alerts

The information contained herein each week is available via text alerts that direct users to online recordings. I will update the short message weekly for at least as long as the newsletter runs. After a new message is posted, a text message is sent to alert users that I have recorded a new update. Users can subscribe for text message alerts for my updates in two easy steps. Step one: register by texting **pestpat7** to 97063. Step two: reply to the confirmation text you receive by texting the letter "y" to complete your registration. Pest Patrol Alerts are sponsored by Syngenta.

### Updates on Twitter

When noteworthy events happen in the field, I will be sending them out quickly via Twitter. If you want to follow those quick updates, follow me at @bugdocisin on Twitter.



### News from Around the State

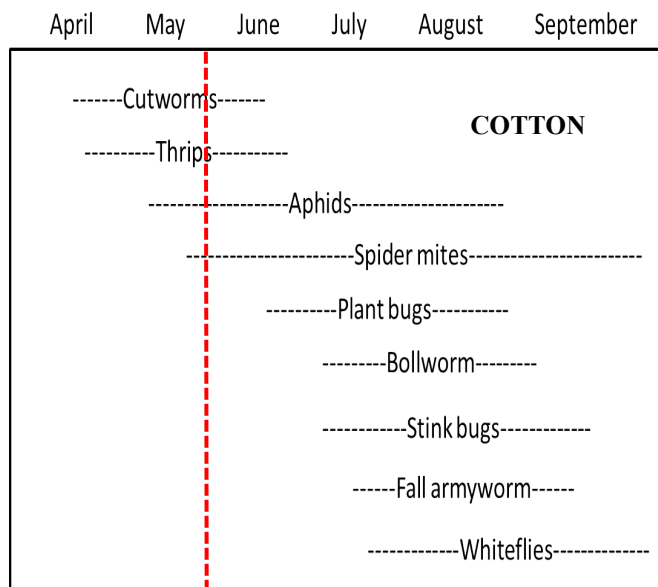
**Charles Davis**, county agent covering Calhoun and Richland Counties, reported that he has "seen some isolated incidences of heavy thrips damage, but, overall, the crop looks pretty good. I still see a lot of thrips on volunteer peanuts but don't see many on the cotton. Looks like our insecticide treatments are doing their job so far. Picking up a lot of grasshoppers. Haven't seen much damage yet but it will be coming soon when the volunteer peanuts are gone." **Jonathan Croft**, county agent covering Orangeburg County, reported that he "talked to several growers this week in Orangeburg and surrounding counties that are treating for thrips in cotton."

### Cotton Situation

As of 20 May 2019, the USDA NASS South Carolina Statistical Office estimated that about 65% of the crop has been planted, compared with 39% the previous week, 45% at this time last year, and 60% for the 5-year average. The condition of the crop has yet to be described by the office (--% excellent, --% good, --% fair, --% poor, and --% very poor), but it will be soon. These are observed/perceived state-wide averages.

### Cotton Insects

Thrips, grasshoppers, and cutworms are the main concerns for seedling cotton now, but we have already



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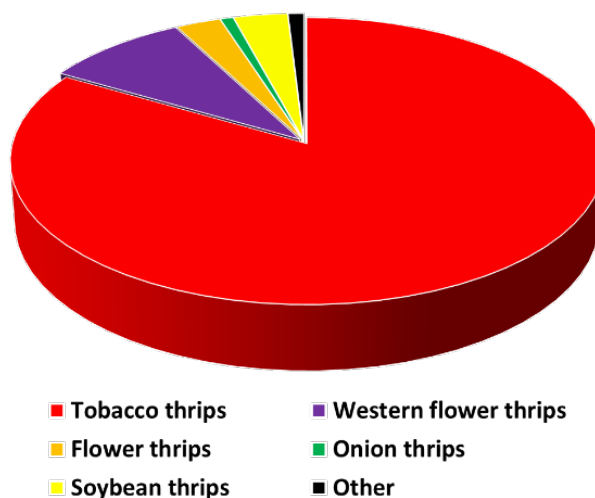
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had reports of burrower bugs and a few other oddball species on young cotton. Keep a watchful eye out for establishing stands and potential problems with insects. Again, pay attention to early infestations of aphids this season, as we will be monitoring for Blue disease transmitted by cotton aphid. We will cover that more in the coming weeks, but do not be too alarmed. We just want to keep an eye on aphids this year and look for incidence of the virus. I want to put out some efficacy trials, so if you develop a population in your area, let me know. I might come put out an insecticide test for cotton aphid in your field! For now, let's get through the "thrips season" in cotton. Our recommendations for addressing thrips in cotton are in the 2019 Pest Management Handbook and copied below:

**Thrips** feed on leaves and terminals of seedling plants, thereby stunting growth and delaying maturity. Damaged leaves appear crinkled on top, and lower surfaces will often have a silvery sheen. Leaf margins become cupped and terminal buds may be destroyed. Tobacco thrips, *Frankliniella fusca*, is the main species encountered in cotton in South Carolina, but there are several other species that regularly show up in our samples from seedling cotton.

**Thrips Species Composition in the Southeast (2016)**



## THRIPS

Product (at planting)	Product/acre	Lb ai/acre	Acre/gal	REI	PHI	Comments
aldicarb (R) AgLogic 15 G or GG	3.5-5.0 lb	0.525-0.75	-	48 hr	90 d	In-furrow granular
thiamethoxam Cruiser, Avicta Duo, or Acceleron (check coding)	-	-	-	12 hr	-	Seed treatment
imidacloprid Gaucho 600, Aerie, TRiO, Acceleron (check coding)	-	-	-	12 hr	-	Seed treatment
acephate Orthene/Acephate 97 Orthene/Acephate 90	16.0 oz 17.2 oz	0.97	-	24 hr	21 d	In-furrow spray
phorate (R) Thimet 20 G	5.0 lb	1.0	-	48 hr	60 d	In-furrow granular
imidacloprid Couraze 4 F Couraze 2 F Admire Pro 4.6 Velum Total 3.67	10.55 oz 21.1 oz 9.2 oz 14-18 oz	0.33   0.24-0.305	12.1 6.0 13.9 7.1-9.1	12 hr	14 d	In-furrow spray; ST + IFS not to exceed 0.5 lb/acre total

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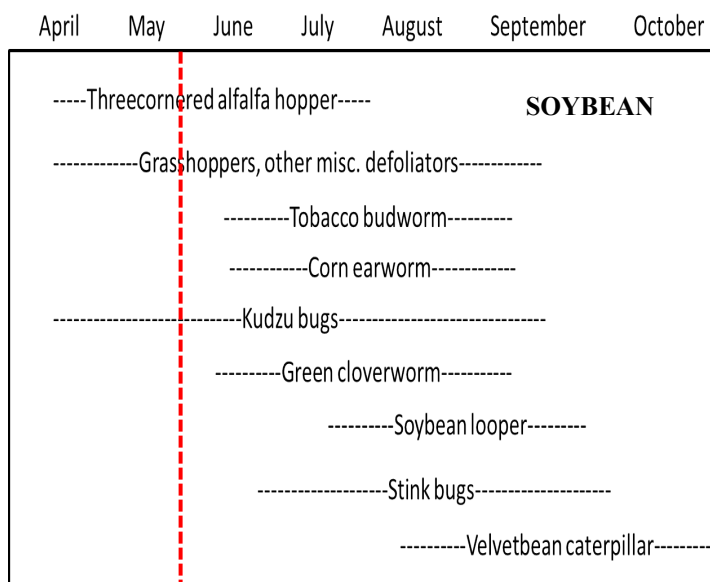


Product (foliar sprays)	Product/acre	Lb ai/acre	Acre/gal	REI	PHI	Comments
dicrotophos (R) Bidrin 8 E	3.2 oz	0.2	40	6 d	30 d	3.2 oz limit pre-bloom
acephate Orthene/Acephate 97 Orthene/Acephate 90	3.0 oz 3.2 oz	0.18	- -	24 hr	21 d	
dimethoate Dimethoate 4 EC	8.0 oz	0.25	16	48 hr	14 d	
spinetoram Radiant 1 SC	1.5-3.0 oz	0.0117- 0.0234	42.7-85.3	4 hr	28 d	Adjuvant recommended

The high rate of aldicarb should also provide some protection against nematodes and suppress early populations of aphids and spider mites. When cotton is planted after May 20, seed treatments have proven to be effective in limiting thrips damage to seedling cotton plants. Avicta (with abamectin) and Aeris (with thiodicarb) have some activity on nematodes. Generally, a preventative insecticide used at planting will protect seedlings from severe stunting characteristic of thrips injury. Occasionally, however, conditions will be unfavorable for proper uptake of systemic insecticides (too cool, dry soil, excessive moisture, etc.), and plants can be severely damaged. **Foliar treatments will be most effective when applied to cotton seedlings prior to unfolding of the second true leaf.** A foliar insecticide treatment may be needed when two or more thrips are found per plant. Shake each plant (randomly select 25 or more) into a large, white cup or on a white cloth or paper to facilitate counting of adults. Use a black cup or cloth for immatures. When most plants have severely damaged growing points and immature thrips are present, one or more foliar treatments may be needed to allow the plants to resume normal growth and development. Examine plants 5-7 days after the initial treatment, and treat again if immatures are still present on most plants. When the newly unfolded leaves of infested plants are free of damage and plants appear to be growing at a normal rate, further applications of insecticides will have little benefit. Treatments applied beyond the four-leaf stage of growth may be counterproductive, as these reduce beneficial populations and often result in problems with other pests. Although effective, acephate can flare populations of spider mites and aphids.

### Soybean Situation

As of 20 May 2019, the USDA NASS South Carolina Statistical Office estimated that about 17% of the crop has been planted, compared with 7% the previous week, 19% at this time last year, and 29% for the 5-year average. About 7% of the crop has emerged, compared with 1% the previous week, 13% at this time last year, and 13% for the 5-year average. The condition of the crop has yet to be described by the office (--% excellent, --% good, --% fair, --% poor, and --% very poor), but it will be soon. These are observed/perceived state-wide averages.



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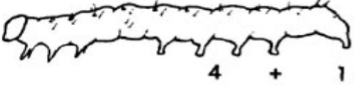


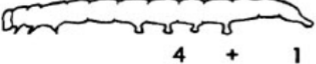





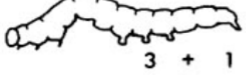


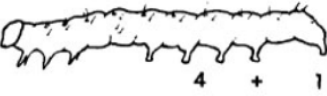



### Soybean Insects

The only issues I have seen yet in soybeans are with deer injury. I have some soybeans that were planted in mid-April that the population of deer here found, but I put a shot of Hinder (Ag soap) on it, and that seemed to reduce the damage. Insects have not been an issue yet. Grasshoppers, kudzu bugs, and the threecornered alfalfa hopper are insects to watch out for right now. Pictures of those were in the last newsletter. It is never too early to start talking about identifying caterpillars and moths. Start familiarizing yourself with these major species.

(2017) Prepared by Jeremy Greene, Professor of Entomology

### FIELD KEY TO COMMON SOYBEAN CATERPILLARS

	 4 + 1	<p><b>CORN EARWORM</b>            4 + 1 pair prolegs            Curls up in hand            Black "warts" on body</p>	
	 4 + 1	<p><b>VELVETBEAN CATERPILLAR</b>            4 + 1 pair prolegs            Very active when handled</p>	
	 2 + 1	<p><b>SOYBEAN LOOPER</b>            2 + 1 pair prolegs            Fatter at tail end            Looping movement</p>	
	 3 + 1	<p><b>GREEN CLOVERWORM</b>            3 + 1 pair prolegs            Not fatter at tail end            Looping movement</p>	
	 4 + 1	<p><b>TOBACCO BUDWORM</b>            4 + 1 pair prolegs            Curls up in hand            Black "warts" on body</p>	

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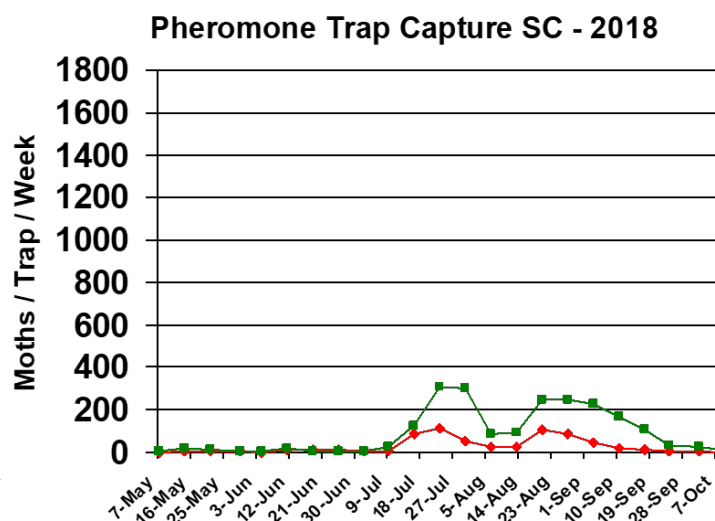
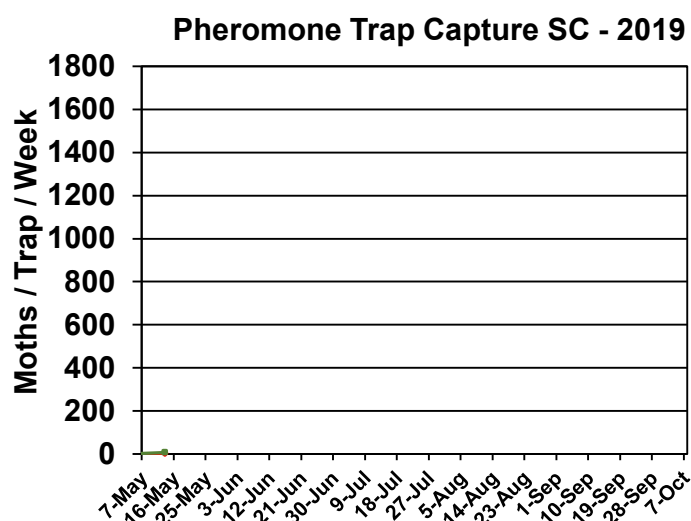




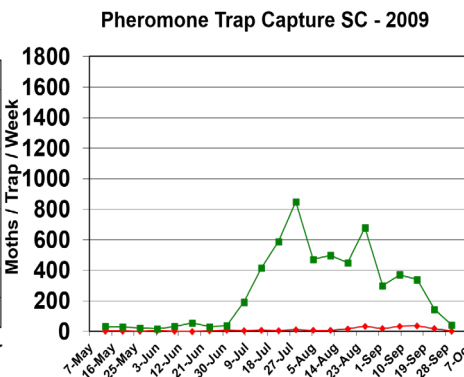
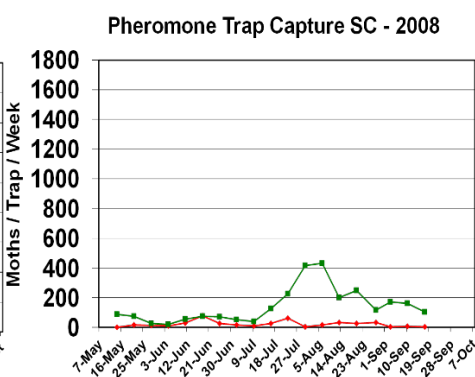
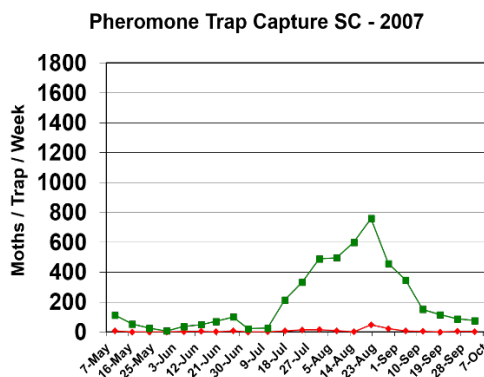
### Bollworm & Tobacco Budworm



Captures of bollworm (BW) and tobacco budworm (TBW) moths in pheromone traps at EREC this season are shown below, as are the captures from 2018 for reference. Tobacco budworm continues to be important for our soybean acres and for any acres of non-Bt cotton. I provide these data as a measure of moth presence and activity in our local area near my research plots. The numbers are not necessarily representative of the species throughout the state.



Trap data from 2007-2017 are shown below for reference to other years of trapping data from EREC:



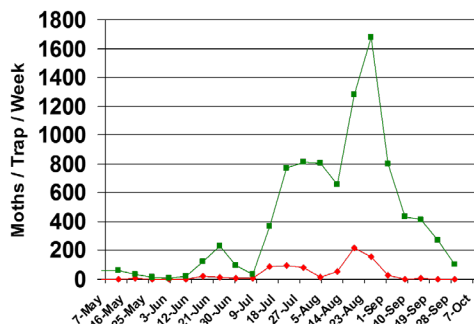
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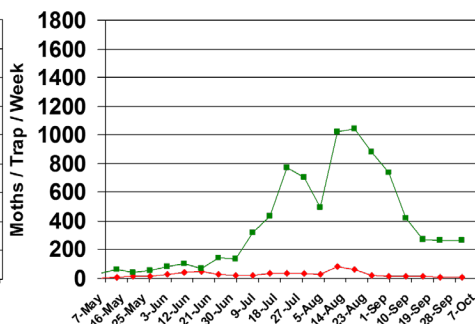
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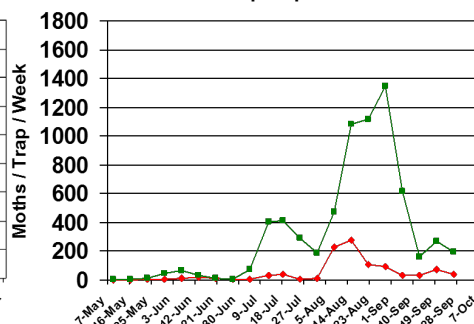
Pheromone Trap Capture SC - 2010



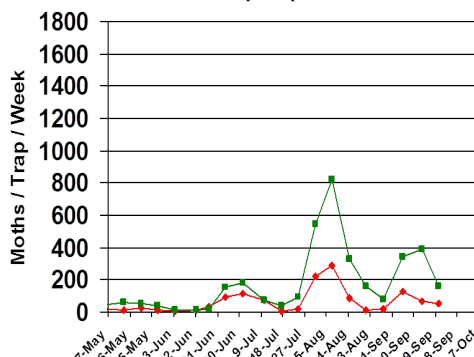
Pheromone Trap Capture SC - 2011



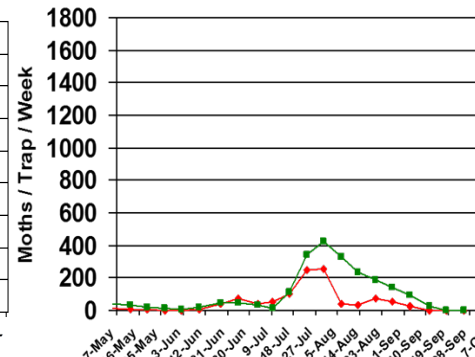
Pheromone Trap Capture SC - 2012



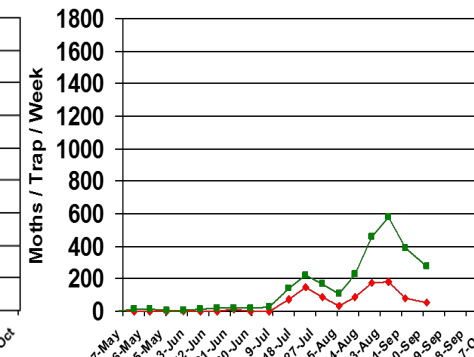
Pheromone Trap Capture SC - 2013



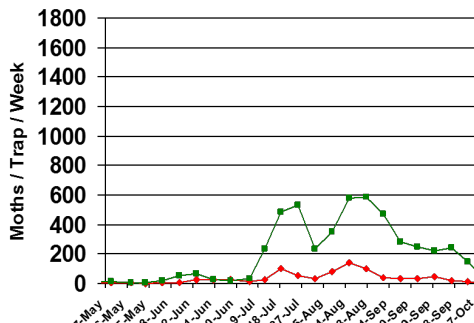
Pheromone Trap Capture SC - 2014



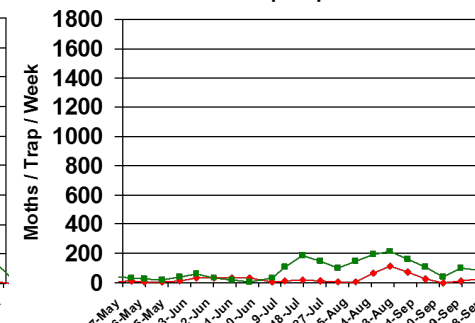
Pheromone Trap Capture SC - 2015



Pheromone Trap Capture SC - 2016



Pheromone Trap Capture SC - 2017



## **Pest Management Handbook – 2019**

Insect control recommendations are available online in the 2019 South Carolina Pest Management Handbook at:

<https://www.clemson.edu/extension/agronomy/pest%20management%20handbook.html>

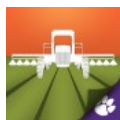
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For historical cotton/soybean insect newsletters:

<https://www.clemson.edu/extension/agronomy/cotton1/newsletters.html>

Sincerely,

Jeremy K. Greene, Ph.D.  
Professor of Entomology



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